

UNITED STATES OF AMERICA:  
WAR DEPARTMENT.

# MONTHLY WEATHER REVIEW.

(GENERAL WEATHER SERVICE OF THE UNITED STATES.)

NOVEMBER, 1887.

## CONTENTS.

	Page.		Page.
INTRODUCTION.....	298	INLAND NAVIGATION.—Stage of water in rivers and harbors; Ice in rivers and harbors; High tides.....	309
ATMOSPHERIC PRESSURE.—General distribution; Comparison of barometric means with those of previous month; Departures from normal; Barometric ranges; Areas of high pressure; Areas of low pressure.....	298	ATMOSPHERIC ELECTRICITY.—Auroras; Thunder-storms.....	310
NORTH ATLANTIC STORMS.—North Atlantic storms for Novem- ber, 1887; Ocean ice; Fog.....	300	MISCELLANEOUS PHENOMENA.—Forest and prairie fires; Meteors; Migration of birds; Mirage; Sand storms; Sun spots..	310
TEMPERATURE OF THE AIR.—General remarks; Ranges; Table of comparative maximum and minimum temperatures; Deviations from the normal; Low temperatures; Frosts; Ice; Temperature of water.....	302	VERIFICATIONS.—Indications; Cautionary signals; Cold wave signals; Local verifications; Errata.....	311
PRECIPITATION.—General distribution; Deviations from the av- erage; Hail; Sleet; Snow; Monthly snowfalls; Dates of first snowfalls; Depth of unmelted snow at end of month; Excessive monthly precipitation for November, 1887, and for November of past years; Heavy rainfalls at Washington City; Drought.....	304	STATE WEATHER SERVICES.—Extracts from reports of the several services .....	312
WINDS.—Most frequent directions; High velocities; Local storms..	309	NOTES AND EXTRACTS.—Rain and snow from cloudless sky; Temperature and precipitation tables.....	314
		METEOROLOGICAL TABLES.—Data from stations of the Signal Service; Data from stations of voluntary observers.....	316
		CHARTS.—I. Tracks of areas of low pressure; II. Isobars, isotherms, and winds; III. Normal and current temperature curves for se- lected stations; IV. Precipitation.	

PREPARED UNDER THE DIRECTION OF  
BRIGADIER GENERAL A. W. GREELY,  
CHIEF SIGNAL OFFICER OF THE ARMY,

BY H. H. C. DUNWOODY,  
1ST LIEUTENANT, 4TH ARTILLERY, A. S. O. AND ASSISTANT.

*PUBLISHED BY AUTHORITY OF THE SECRETARY OF WAR.*

WASHINGTON CITY:  
SIGNAL OFFICE.  
1888.